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(71) Applicant: **MATSUSHITA ELECTRIC IND CO LTD**

(72) Inventor: **WATANABE SHOICHIRO**  
**HASHIMOTO AKIRA**  
**SUGIMOTO TOYOJI**

(54) **NONAQUEOUS ELECTROLYTE BATTERY,  
POSITIVE ACTIVE MATERIAL THEREOF, AND  
MANUFACTURE OF POSITIVE PLATE**

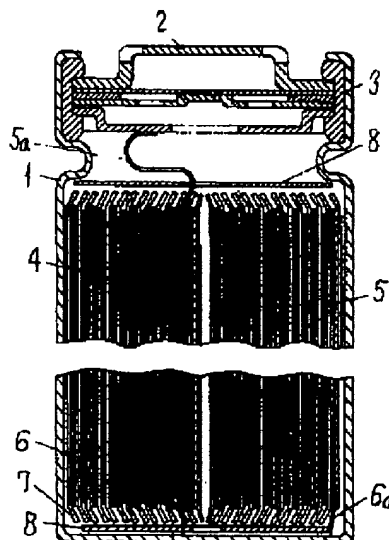
housed in a battery case 1, and a plate group 4 is filled with the electrolyte so as to form a battery.

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(57) Abstract:

PROBLEM TO BE SOLVED: To provide a battery having the excellent charging and discharging cycle characteristic by preventing the pulverization of  $\text{LiCoO}_2$  as the positive electrode active material at the time of charging and discharging a battery.

SOLUTION: After heating the cobalt hydroxide formed of secondary particles, which are respectively formed of multiple fine crystal particles at  $0.1\text{-}10\mu\text{m}$  of unidirectional diameter, so as to obtain  $\text{Co}_3\text{O}_4$ , this  $\text{Co}_3\text{O}_4$  is mixed with lithium salt at 1.0 of  $\text{CO/Li}$  atomic ratio. A positive plate 5 is formed by mixing the powder of  $\text{LiCoO}_2$ , acetylene black, fluororesin binder at 10, 7, 3 part by weight, and suspended in the carboxymethylcellulose solution so as to be formed into the paste. Both surfaces of an aluminum foil is coated with this paste, and heated, and rolled at  $10.0\text{ t}$  of  $1003/1004$  in the plate condition, and the positive plate is thereby formed. The positive plate 5 and a negative plate 6 are spirally wound through a separator 7, and



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